

WHAT IS CLAIMED IS:

1. An inkjet printing apparatus having a printhead with an orifice surface in which a plurality of orifice groups each formed by a plurality of orifices for discharging ink are formed, and cleaning means for cleaning the orifice surface, comprising:

counting means for detecting and storing an ink discharge count of each orifice group; and

cleaning control means for cleaning the orifice surface by the cleaning means in accordance with ink discharge counts of the plurality of orifice groups,

wherein in said cleaning control means, an ink discharge count used to execute cleaning in accordance with a discharge count of ink discharged from an orifice group formed at a predetermined position of the printhead out of the plurality of orifice groups, and an ink discharge count used to execute cleaning in accordance with a discharge count of ink discharged from another orifice group formed at a position different from the orifice group formed at the predetermined position are different.

2. The apparatus according to claim 1, wherein said cleaning control means determines, on the basis of the discharge count of each orifice group that is stored in said counting means, whether a predetermined cleaning condition which changes in accordance with a formation position of the orifice group has been established, and

when the predetermined cleaning condition has been established, executes cleaning.

3. The apparatus according to claim 2, wherein
said cleaning control means determines as the
5 predetermined cleaning condition whether the discharge
count of each orifice group has reached a predetermined
count, and

in the predetermined cleaning condition, a
predetermined count corresponding to an outer orifice
10 group and a predetermined count corresponding to an
orifice group arranged inside from the outer orifice
group are different.

4. The apparatus according to claim 2, wherein
said cleaning control means determines as the
15 predetermined cleaning condition whether the discharge
count of each orifice group has reached a predetermined
count, and

in the predetermined cleaning condition, a
predetermined count corresponding to the orifice group
20 formed at the predetermined position and a
predetermined count corresponding to said another
orifice group formed outside the orifice group formed
at the predetermined position are different.

5. The apparatus according to claim 2, wherein
25 said cleaning control means determines as the
cleaning condition whether a value obtained by
multiplying the discharge count of each orifice group

by a weighting coefficient has reached a predetermined count, and

a weighting coefficient corresponding to an outer orifice group and a weighting coefficient corresponding to an orifice group arranged inside from the outer orifice group are different.

6. The apparatus according to claim 2, wherein

said cleaning control means determines as the cleaning condition whether a value obtained by multiplying the discharge count of each orifice group by a weighting coefficient has reached a predetermined count, and

a weighting coefficient corresponding to the predetermined orifice group and a weighting coefficient corresponding to said another orifice group formed outside the predetermined orifice group are different.

7. The apparatus according to claim 3, wherein the predetermined count corresponding to the outer orifice group is larger than the predetermined count

corresponding to the orifice group arranged inside from the outer orifice group.

8. The apparatus according to claim 5, wherein the weighting coefficient corresponding to the outer orifice group is smaller than the weighting coefficient corresponding to the orifice group arranged inside from the outer orifice group.

9. The apparatus according to claim 2, further

comprising:

detection means for detecting a distance between the orifice groups formed in the printhead; and

5 setting means for setting the cleaning condition in accordance with the distance between the orifice groups that is detected by said detection means.

10. The apparatus according to claim 2, wherein when said cleaning control means determines that the predetermined cleaning condition for any one of the
10 orifice groups of respective inks has been established, said cleaning control means cleans the orifice surface.

11. The apparatus according to claim 1, wherein said cleaning control means defines, as a discharge count of ink discharged from the printhead, a value obtained by
15 multiplying the discharge count of each orifice group by a weighting coefficient corresponding to a formation position of the orifice group, determines whether the cleaning condition of the printhead has been established, on the basis of the discharge count of ink
20 discharged from the printhead, and when the cleaning condition of the printhead has been established, executes cleaning.

12. The apparatus according to claim 11, wherein a weighting coefficient corresponding to the orifice
25 group formed at the predetermined position and a weighting coefficient corresponding to said another orifice group formed outside the orifice group formed

at the predetermined position are different.

13. The apparatus according to claim 11, further comprising detection means for detecting a distance between the orifice groups formed in the printhead,

5 wherein the weighting coefficient is changed in accordance with the distance between the orifice groups that is detected by said detection means.

14. The apparatus according to claim 1, wherein said cleaning means includes wiping means for wiping an end
10 face of the orifice by an elastic member.

15. The apparatus according to claim 1, wherein the orifice groups are arranged for at least yellow, magenta, and cyan colors.

16. A cleaning control method for an inkjet printing
15 apparatus having a printhead with an orifice surface in which a plurality of orifice groups each formed by a plurality of orifices for discharging ink are formed, and cleaning means for cleaning the orifice surface, comprising:

20 a counting step of detecting and storing an ink discharge count of each orifice group; and

 a cleaning control step of cleaning the orifice surface by the cleaning means in accordance with ink discharge counts of the plurality of orifice groups,

25 wherein in the cleaning control step, an ink discharge count used to execute cleaning in accordance with a discharge count of ink discharged from an

orifice group formed at a predetermined position of the printhead out of the plurality of orifice groups, and an ink discharge count used to execute cleaning in accordance with a discharge count of ink discharged from another orifice group formed at a position different from the orifice group formed at the predetermined position are different.

17. The method according to claim 16, wherein in the cleaning control step, a value obtained by multiplying the discharge count of each orifice group that is counted in the counting step by a weighting coefficient corresponding to a formation position of the orifice group is defined as a discharge count of ink discharged from the printhead, whether a cleaning condition of the printhead has been established is determined on the basis of the discharge count of ink discharged from the printhead, and when the cleaning condition of the printhead has been established, cleaning is executed.

18. The method according to claim 16, wherein in the cleaning control step, when the discharge count of each orifice group that is stored in the counting step reaches a predetermined value, the cleaning condition is determined to have been established and the orifice surface is cleaned, and a predetermined count corresponding to an outer orifice group and a predetermined count corresponding to an orifice group arranged inside from the outer

orifice group are different.

19. The method according to claim 16, wherein

in the cleaning control step, when a value
obtained by multiplying the discharge count of each

5 orifice group that is stored in the counting step by a
weighting coefficient reaches a predetermined value,
the cleaning condition is determined to have been
established and the orifice surface is cleaned, and

a weighting coefficient corresponding to an outer
10 orifice group and a weighting coefficient corresponding
to an orifice group arranged inside from the outer
orifice group are different.

20. An inkjet printing apparatus having a printhead
with an orifice surface in which a plurality of orifice
15 groups each formed by a plurality of orifices for
discharging ink are formed, and cleaning means for
cleaning the orifice surface, comprising:

storage means for storing, for each of the
plurality of orifice groups, information on a discharge
20 amount of ink discharged from the orifice group; and

cleaning control means for cleaning the orifice
surface by the cleaning means when an ink discharge
amount represented by the information stored in said
storage means exceeds a predetermined amount,

25 wherein an ink discharge amount used to shift to
cleaning operation is different between an orifice
group formed at a predetermined position of the

printhead and an orifice group formed at a position different from the orifice group formed at the predetermined position.